I claim:

1. An electrochemical capacitor cell, said cell comprising:

a cathode having a coating of an amorphous metal oxide;

an anode having a coating of an amorphous metal oxide;

an electrolyte soaked separator disposed between said cathode and anode;

first and second current collectors disposed, respectively, adjacent the outer surfaces of said cathode and anode; and

a conductive resin coating surrounding the exterior surfaces of said cathode and anode and their respective current collectors to provide an exterior packaging having rigidity and strength for said cell.

2. The electrochemical capacitor cell as claimed in claim 1, wherein said cell further comprises a fibrous preform layer covering the exterior surface thereof with said resin coating surrounding and penetrating said preform layer to generate a compressive stress in the resin to reduce the ESR of said cell.

3. The electrochemical capacitor cell as claimed in claim 1, wherein said epoxy resin coating includes fibers therein.

4. The electrochemical capacitor cell as claimed in claim 3, wherein said fibers comprise ceramic fibers.

5. The electrochemical capacitor cell as claimed in claim 1, wherein the capacitor comprises a plurality of said cells aligned in a stacked arrangement, said stacked cells being encased in said epoxy resin.

6. The electrochemical capacitor cell as claimed in claim 1, wherein said cell further includes a conductive layer interposed between the exterior surface of each said cathode and anode and its respective current collector.

7. The electrochemical capacitor cell as claimed in claim 6, wherein said epoxy resin coating includes ceramic fibers therein.

8. A light-weight reinforced electrochemical capacitor comprising:

a plurality of stacked electrochemical cells each said cell including a pair of electrodes having amorphous metal oxide therein with said electrodes being separated by an electrolyte soaked layer, said stack of cells having first and second end surfaces;

a conductive layer interposed between adjacent stacked electrochemical cells;

a pair of conductive end layers covering, respectively, said first and second end surfaces of said stacked electrochemical cells;

first and second current collectors disposed, respectively, proximately adjacent said pair of conductive end layers; and

a conductive resin coating encasing the outermost surfaces of said stacked cells to provide an exterior casing for said capacitor providing rigidity and strength without application of external pressure.

9. The electrochemical capacitor as claimed in claim 8, wherein said capacitor further includes a metallic coating disposed on the outermost end surfaces of said stacked cells to further reduce contact resistance.

10. The electrochemical capacitor as claimed in claim 9, wherein said conductive layers comprise conductive rubber.

11. The electrochemical capacitor as claimed in claim 8, wherein said capacitor further comprises a fibrous preform layer covering the exterior surface of said stacked cells with said resin coating surrounding and penetrating said preform layer.

12. The electrochemical capacitor as claimed in claim 11, wherein said fibers comprise ceramic fibers.

13. The electrochemical capacitor as claimed in claim 12, wherein said fibers comprise alumina or SiC fibers.

14. A process for forming a light-weight reinforced capacitor comprising:

creating a die member having first and second mating components, said first component being in the form of a die mold having a recessed area, and said second component being in the form of a mating die punch sized and shaped to fit said recessed area;

sandwiching at least one electrochemical capacitor cell between a pair of fibrous sheet preforms to form a preform sandwiched capacitor;

positioning the preform sandwiched capacitor in the recessed area of said die mold;

placing epoxy resin in the recessed area having said preform sandwiched capacitor therein;

compressing said second component mating die punch into said recessed area to force the epoxy resin into said preform sheets and to encase said sandwiched capacitor with said epoxy resin;

maintaining said compression for a time sufficient to cure said epoxy resin;

withdrawing said second component mating die punch from said first component recessed area; and

removing said resin encased sandwiched capacitor.

15. The process as claimed in claim 14, wherein said preform sandwiched capacitor comprises a plurality of stacked electrochemical cells.

16. The process as claimed in claim 14, wherein said perform sheet comprises a dimensionally stable fibrous perform sheet.

17. The process as claimed in claim 14, wherein said epoxy resin comprises a high temperature thermosetting epoxy resin.

18. The process as claimed in claim 17, wherein said thermosetting epoxy resin includes fibers therein.

19. The process as claimed in claim 18, wherein said thermosetting epoxy resin includes alumina fibers therein.

20. The process as claimed in claim 19 wherein said preform sandwiched capacitor comprises a plurality of stacked electrochemical cells, and wherein said epoxy resin comprises a low density, high temperature thermosetting epoxy resin containing alumina fibers.